

## CLAIMS

1. A method of fitting a tire P and a removable tread support S on a one-piece wheel rim J, rim comprising a first rim seat, inclined outwards, extended axially outwards by a projection of low height and joined axially inwards to a rim bearing surface intended to receive said tread support S and a second rim seat, inclined outwards, whose axially inner end is on a circle with a diameter greater than the diameter of the circle on which the axially inner end of the first rim seat is situated, and said tire P comprising a first bead and a second bead which will be mounted respectively on the first and second rim seats, said method comprising the steps of:

- (a) placing said tread support S into said tire P,
- (b) placing, from the side opposite to the second rim seat, the second bead of said tire P and said tread support S on the rim J until positioned on said rim bearing surface;
- (c) fitting said tread support S completely onto said rim bearing surface and mounting the first bead on the first rim seat; and
- (d) mounting the second bead on the second rim seat;

whereby the step (c) of fitting said tread support onto said rim bearing surface further comprises the sequence of sub-steps of:

- first, gripping the first bead seat of said tire P at a given location before completely pushing said tread support S on said rim bearing surface, then
- moving radially outward said given location of the first bead seat to move the first bead seat radially away from said tread support S,
- pushing said tread support S completely onto said rim bearing surface, and
- releasing the first bead after completing the pushing of the said tread support S on to said rim J.

2. The mounting method according to Claim 1, wherein the step (c) of fitting said tread support S on said rim bearing surface is accomplished by direct axial pushing of an application tool against the wall of said tread support S and said tool being disposed on the side of said tread support corresponding to the first bead and while rotating said rim about its axis of symmetry.

3. The mounting method according to Claim 2, wherein the step (c) of fitting said tread support S on said rim bearing surface is continued until a stop on said application tool contacts an external projection on the first seat of said rim J.

5 4. The mounting method according to Claim 3, wherein said rim J further comprises a mounting well disposed between the second seat and said rim bearing surface of said tread support, and wherein

- 10 - the step (b) of placing the second bead of said tire P and said tread support S further comprises placing the second bead into said mounting well, and
- after fitting completely said tread support S on said rim bearing surface and before releasing the first bead of said tire, moving the first bead axially outwardly to exert a traction on the second bead to create a local space between the second bead of said tire P and the wall of said mounting well adjacent to the second seat of said rim J, and introducing a mounting  
15 lever into said local space between the second bead and the wall of the mounting well adjacent to the second seat.

5. A tool for fitting the beads of a tire P and a tread support S on a single-piece rim J, comprising:

- 20 - an elongate-shaped bracket having an axis A,
- a finger extending from said bracket in a direction B perpendicular said axis A; and
- a means for transmitting an application force from said bracket to a zone C projecting beyond said finger, said zone C being offset a distance D measured in the direction B from said axis A of said bracket.

25 6. The tool according to Claim 5, wherein said means for transmitting an application force from said bracket is a slider.

7. The tool according to Claim 5, wherein said means for transmitting an application force  
30 from said bracket is a freely rotating roller.

8. The tool according to Claim 7, wherein said roller has an axis of rotation A' parallel to said axis A of said bracket.

5 9. The tool according to Claim 7, wherein said roller is fixed to said finger.

10. The tool according to Claim 5, further comprising a stop disposed in the direction B relative to said bracket and offset relative to said finger along said axis A beyond said force transmission means.

10 11. The tool according to Claim 10, wherein said stop is a freely rotating roller having an axis of rotation parallel to said axis A.

12. The tool according to Claim 10, wherein said stop is a freely rotating roller having an  
15 axis of rotation coaxial with said axis A.

13. The tool according to Claim 5, further comprising a fixing projection from said bracket for fixing said bracket to a tool support, and said fixing projection having an axis substantially parallel to said axis A and offset in the direction B by a distance less than or equal to said  
20 distance D.

14. The tool according to Claim 13, wherein the axis of said fixing projection is substantially coaxial with said axis A'.